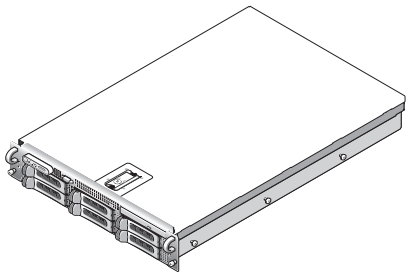
Quantum

DXi2500-D



DXi2500-D Site Planning Guide

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Product Overview

The DXi2500-D disk backup and replication appliances use Quantum's data de-duplication technology to expand the amount of backup data users can retain on fast-recovery RAID systems by 10 to 50 times. The result is a cost-effective way for IT departments to store backup data on disk for months instead of days, providing high speed, reliable restores, increasing available data recovery points, and reducing media management. For disaster recovery in distributed environments, the DXi2500-D system makes automated WAN replication practical by dramatically reducing the bandwidth required to move backup data securely between sites. DXi2500-D solutions are integrated systems that are easy to install and use with all leading backup applications. They provide best-in-class performance and flexible, easy-to-use NAS interface and Ethernet connectivity. DXi2500-D appliances are part of a comprehensive set of backup solutions, serviced and supported by Quantum, the leading global specialist in backup, recovery, and archive.

Included With Your DXi2500-D

The DXi2500-D is fully configured to your specifications and pre-tested in the factory. Every DXi2500-D base system arrives with all parts included. Each system comes with an accessory kit containing rack-mount hardware and a Documentation CD which includes the *User's Guide*.

Installation

Rack Compatibility

Nearly all standard four-post EIA 19" server racks are compatible with the DXi2500-D rack mount kits. Refer to the physical characteristics of the DXi2500-D system for depth requirements.

DXi2500-D Setup and Configuration

After hardware has been installed and initially configured, you are ready to use your DXi2500-D. The remote management Web pages allow you to reconfigure your DXi2500-D at any time.

Required Network Information

To utilize the remote management pages of the DXi2500-D, you must connect it to your network.

Note the following considerations:

- DHCP (Dynamic Host Command Protocol) is not supported.You must provide a static IP address at the time of installation.
- The default IP Address is: **10.1.1.1**

You and other administrative users can always return to the remote management pages to modify all DXi2500-D settings, including network settings. Refer to the *DXi2500-D User's Guide* included on the Documentation CD for additional information on initially configuring your DXi2500-D.

Network Segmentation

The DXi2500-D system allows you to configure the network settings to utilize network segmentation. Network segmentation allows you to configure separate network settings for each of the primary types of network traffic:

- **Replication**
- **Management**
- **Data**

If network segmentation is selected, each segment (replication, management, and data) will require it's own network information such as an IP address, network mask, and default gateway.

The number of IP addresses required for each DXi2500-D system depends on the type of segmentation selected. Refer to the following list:

- **No Segmentation Selected**
  - **Single bonded interface composed of both ETH0 and ETH1** - If a single bonded interface is selected, both ETH0 and ETH1 are configured as a single port with a single IP address. Both ports would be viewed as a single port for all traffic. (**1 IP address Required**)

> **Note:** Not segmented (**Bond All**) is the default configuration.

- **Segmentation Selected**
  - **Replication/Management/Data traffic share a single bonded interface composed of ETH0 and ETH1** - If this option is selected, all traffic types (Replication, Management, and Data) share a single bonded interface which is composed of both ports (ETH0 and ETH1). (**3 IP address Required**)
  - **Replication traffic is dedicated to ETH0, Management and Data traffic share ETH1** - If this option is selected, Replication traffic is dedicated to only ETH0. No other traffic is allowed on that port. Data and Management traffic are only allowed on ETH1.
  - **Management traffic is dedicated to ETH0, Replication and Data traffic share ETH1** - If this option is selected, Management traffic is only allowed on ETH0. No other traffic is allowed on that port. Replication and Data traffic are only allowed on ETH1. (**3 IP address Required**)
  - **Data traffic is dedicated to ETH1, Replication and Management traffic share ETH0** - If this option is selected, Data traffic is dedicated to only ETH1. No other traffic is allowed on that port. Replication and Management traffic are only allowed on ETH0. (**3 IP address Required**)

Replication Firewall Port Requirements

The following firewall ports must be opened for replication to operate optimally:

- Port 80
- Port 1062

Installation and Integration Services

Installation and integration of the DXi2500-D system by Quantum is not required since the DXi2500-D is customer installable. If you want to purchase installation services, please contact your Quantum Sales representative to discuss installation services.

Phone support for the installation process is available via the Quantum support number for your area. Customers in the U.S. and Canada may call 1-800-284-5101.

Service

DXi2500-D Warranty

The DXi2500-D's warranty includes one year of Quantum's **Bronze** Support Plan for hardware and 90 Days on the software options. This includes 5x9xNBD on-site response time, 5x9 telephone support, and on-line resources. This warranty covers the DXi2500-D and all drives, and includes firmware downloads, telephone support, E-mail Home, and Internet access to Quantum's online Customer Support web site. The Quantum Customer Support web site features online service request processing, Web-based event status tracking, and a comprehensive Knowledge Base. Quantum's Knowledge Base gives you 7x24 real-time electronic access to complete product and support resources and the expertise of Quantum's Global Services organization.

- Customer Replaceable Units (CRUs): Hard drives
- Field Replaceable Units (FRUs): Chassis, fans, power supplies, and RAID controller*

* *The above lists may not be comprehensive. For additional information on FRUs, please contact your Quantum sales representative.*

Service Package Upgrades

Quantum's Global Services organization is geared towards delivering the fastest possible response and root cause resolution, helping you maximize your backup investments, better manage processes, and make the best use of your resources. We ensure total customer satisfaction by providing comprehensive, responsive services on a worldwide basis.

A variety of support options are available to you via Quantum's tiered hardware support plans to meet a range of budget and availability requirements. Quantum's Support Plans include **Next Business Day Gold** (Next Business Day Onsite, 7x24 Phone Support), **Gold** (7x24x4 Hr on-site, 7x24 phone support), and a customized **Platinum** offering. A Warranty extension of **Bronze** (5x9xNBD on-site, 5x9 phone support) is also an option for the second and third year of ownership. Features of these plans include: 24-hour telephone support, on-site response, access to strategic account management (available with select service packages), priority call handling, strategically located spares parts, online resources, and firmware upgrades. For more information on these service plans, please visit www.quantum.com or contact your Quantum Sales Representative.

Quantum service engineers are available around the world and are deployed to respond to on-site service demands. In addition, spare part depots are strategically located around the globe so that service technicians have access to the parts and equipment necessary to maintain or repair your DXi2500-D.

StorageCare™ Guardian

StorageCare Guardian is a remote monitoring and diagnostic solution that enables Quantum to proactively monitor the health of Quantum systems over the Internet and use intelligent diagnostics data to remotely service the equipment if issues arise.

StorageCare Guardian delivers **more reliable backups** and **faster resolution time** for customers at no additional cost for supported products under warranty or service contract.

More reliable backups

Leveraging the intelligence inside Quantum's storage systems, StorageCare Guardian proactively monitors the health of the units, uses diagnostics data to predict possible failures, and determines whether or not the problem involves a Quantum product or other critical components in the environment.

Faster resolution time

When issues occur, StorageCare Guardian provides better diagnostics data that will enable Quantum to identify the root cause for rapid problem resolution.

StorageCare Guardian can be downloaded from:

http://www.quantum.com/ServiceandSupport/Services/GuardianInformation/Index.aspx.

DXi2500-D Configurations

The DXi2500-D can be ordered in the following configurations (see table 1).

Table 1 DXi2500-D Configurations

DXi2500-D Configurations	Raw Capacity (TB)	Native Usable Capacity (TB)	Rack Space Required
1 DXi2500-D System	3 TB	1.8 TB	2U

DXi2500-D Shipping Information

The DXi2500-D is delivered in the following configurations (see table 2).

Table 2 DXi2500-D Shipping Configurations

DXi2500-D Configuration	Total Boxes
1 DXi2500-D System	1

DXi2500-D Specifications

This section lists characteristics and specifications the DXi2500-D. These characteristics and specifications are categorized as follows:

- Physical Characteristics
- Environmental Specifications
- Environmental Specifications

Note: For hard drive specifications see the appropriate hard drive product manual.

Physical Characteristics

The following tables provide dimensions and other physical characteristics of the DXi2500-D system components:

- Table 3 - Physical Characteristics
- Table 4 - Storage Capacity
- Table 5 - Cable Drops
- Table 6 - Interfaces
- Table 7 - Software Capabilities
- Table 8 - Power Requirements

Table 3 Physical Characteristics

DXi2500-D Physical Characteristics	
Height	3.4 in (8.64 cm)
Width (side to side)	17.5 in (44.43 cm)
Depth (front to back)	29.31 in (74.4 cm)
Weight (stand alone)	50.71 lb (23 kg)

Table 4 Storage Capacity

DXi2500-D Storage Capacity	
Total raw capacity	3 TB
Usable capacity	1.8 TB

Table 5 Cable Drops

DXi2500-D Cable Drops	
Ethernet Cable Drops	1 to 2 Ethernet connections for NAS connectivity and remote management

Table 6 Interfaces

DXi2500-D Interfaces	
Interfaces	**NAS backup target:** NFS or CIFS
Number of shares	128 shares maximum
Hardware	2 port 10/100/1000 BaseT Ethernet (RJ45 connector)

Table 7 Software Capabilities

DXi Software Capabilities	
Policy based data de-duplication options	**Adaptive In-line De-duplication**: data is de-duplicated on ingest. **Deferred Processing De-duplication**: data is ingested to disk first, and de-duplicated in a separate process at a time set by the user. Both methodologies may be enabled for different data sets in the same DXi2500-D.
Replication	DXi2500-D models offer support for remote replication. Replication is asynchronous, one-to-one or multiple-to-one configurations; shares in same unit act as replication source or target; units with shares acting as replication targets can also support local backup.

Table 8 Power Requirements

DXi2500-D Power Requirements	
Voltage	85–264 VAC, autoranging, 47–63 Hz
Wattage	750 W
Maximum inrush current	Under typical line conditions and over the entire system ambient operating range, the inrush current may reach 55 A per power supply for 10ms or less.
Batteries	System battery - CR 2032 3.0-V lithium ion coin cell RAID battery - 4.1-V lithium ion

Caution: To safeguard backups in the event of a power outage, Quantum recommends that you connect the DXi2500-D to a UPS (uninterruptable power supply).

Environmental Specifications

Table 9 Environmental Specifications

Table 9 provides various DXi2500-D environmental specifications.

Climatic Environment		
Temperature	Operating	10° to 35°C (50° to 95°F) with a maximum temperature gradation of 10°C per hour*
	Shipping and storage	–40° to 65°C (–40° to 149°F) with a maximum temperature gradation of 20°C per hour
Relative humidity	Operating	20% to 80% (noncondensing) with a maximum humidity gradation of 10% per hour
	Shipping and storage	5% to 95% (noncondensing) with a maximum humidity gradation of 10% per hour
Altitude	Operating	–16 to 3048 m (–50 to 10,000 ft)
	Shipping and storage	–16 to 10,600 m (–50 to 35,000 ft)
Heat	Operating	2697 BTU/hr maximum
* 35°C (95°F) is the maximum temperature for the DXi2500-D at sea level. For every 1000 feet (305 meters) of altitude, the maximum temperature is reduced by 1° (example: the maximum temperature for a DXi2500-D at 1000 feet (305 meters) is 34°C (93°F).		
Maximum Vibration		
Operating		0.26 G at 5–350 Hz for 2 min
Shipping and storage		1.54 G at 10–250 Hz for 15 min
Maximum Shock		
Operating		One shock pulse in the positive z axis (one pulse on each side of the system) of 41 G for up to 2 ms
Shipping and storage		Six consecutively executed shock pulses in the positive and negative x, y, and z axes (one pulse on each side of the system) of 71 G for up to 2 ms

Regulatory Approvals	
	FCC (U.S. only) Class B ICES (Canada) Class B CE Mark (EN 55022 Class B, EN55024, EN61000-3-2, EN61000-3-3) VCCI (Japan) Class B BSMI (Taiwan) Class A C-Tick (Australia/New Zealand) Class B SABS (South Africa) Class B CCC (China) Class B MIC (Korea) Class B UL 60950 CAN/CSA C22.2 No. 60950 EN 60950 IEC 60950

Caution: The DXi2500-D system is designed to be installed in a rack enclosure. Ensure that the operating temperature inside the rack enclosure does not exceed the maximum rated ambient temperature. Do not restrict air flow to the DXi2500-D components.

6-66593-001 Rev A01

For assistance contact Quantum Technical Assistance center:

North America	+1-800-284-5101
UK, France, and Germany	00800 4 QUANTUM
EMEA	+44 1256 848 766

For worldwide support: www.quantum.com/contactsupport

Quantum

Backup. Recovery. Archive. It's What We Do.

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Quantum Corp. (NYSE: QTM) is the leading global storage company specializing in backup, recovery and archive. Combining focused expertise, customer-driven innovation, and platform independence, Quantum provides a comprehensive range of disk, tape, media, and software solutions supported by a world-class sales and service organization. As a long-standing and trusted partner, the company works closely with a broad network of resellers, OEMs, and other suppliers to meet customer's evolving data protection needs.

6-66593-001 Rev A01 May 2009